REMARKS

In the Office Action, claims 1-33 are rejected. By the present Response, claims 6, 10, 13, 23 and 29 are amended. Claim 12 is canceled. Upon entry of the amendments, claims 1-11 and 13-33 will be pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

Objection to Claims

The Office Action summarizes claim 6 as objected under 37 C.F.R. §1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

By the present response, claim 6 is amended to further limit the subject matter of claim 1. Claim 6 now recites "the collision avoidance array further disposed on a non-detecting face of the detector" which limits the subject matter of claim 1.

Rejections Under 35 U.S.C. §102

The Office Action summarizes claims 1-5, 7, 9, 10, 12-24, 26, 27, 29, 30, 32, and 33 as rejected under 35 U.S.C. §102(b) as being anticipated over U.S. Patent 5,651,044, Klotz et al. (hereinafter "Klotz"). All of the claims are believed to be patentable for the reasons summarized below.

Claim 1 and Claims Depending Therefrom

Claim 1 recites an imaging system for sensing a presence of objects near the imaging system. The imaging system includes a source configured for emitting a stream of radiation and a detector configured for detecting a portion of radiation and impacting a detecting face of the detector. The imaging system further includes a collision avoidance array disposed on the detecting face of the detector and configured for sensing objects.

Klotz fails to disclose the collision avoidance array disposed on the detecting face of the detector.

Applicants respectfully submit that Klotz fails to disclose a collision avoidance array that is disposed on a detecting face of the detector. The capacitive proximity detection system, as disclosed by Klotz, is coupled to components of a radiation imaging system so as to sense the position of the radiation detector assembly with respect to a subject and to generate signals to control the movement of the gantry assembly and components thereon to dispose the radiation detector in a desired location with respect to the subject (*See,* FIG. 1 and column 3, lines 48-54). Klotz fails to teach a collision avoidance array disposed on the face of the detector.

Because, Klotz fails to disclose the capacitive proximity detection system being disposed on the detecting face of the detector assembly, the reference cannot support a *prima facie* case of anticipation of claim 1. Accordingly, Applicants respectfully submit that independent claim 1 and claims depending therefrom are allowable and respectfully request the Examiner to reconsider the rejection of the claims.

Claim 10 and Claims Depending Therefrom

Claim 10 recites a collision avoidance system for avoiding collision of a system component with an object. The system includes a collision avoidance array disposed on a face of the system component, the collision avoidance array comprising a plurality of plates configured to detect a presence of objects and generate a corresponding electrical signal. The system component is an X-ray detector. The system further includes a multiplexer coupled to the collision avoidance array, the multiplexer configured to selectively activate the plurality of plates and a sensing circuit configured to sense the electrical signal and to generate an output signal representative of the presence of the object.

Klotz fails to disclose the collision avoidance array disposed on a face of the system component.

As discussed with reference to the rejection of claim 1, Klotz does not teach, suggest or disclose each and every aspect of Applicants' recited invention as claimed in independent claim 10. Claim 10 and its dependent claims therefore cannot be anticipated by Klotz.

Claim 15 and Claims Depending Therefrom

Claim 15 recites a detection system for detecting a presence of an object. The detection system includes a plurality of sensors disposed on a substrate substantially in a plane, each of the plurality of sensors configured for detecting the presence of the object and generating a corresponding electrical signal. The detection system further includes a plurality of conductors extending substantially in the plane and coupled to a corresponding one of the plurality of sensors, each conductor configured to transmit the electrical signal when the object is detected.

The Klotz reference fails to disclose a plurality of sensors disposed on a substrate substantially in a plane.

Applicants respectfully submit that Klotz fails to disclose a plurality of sensors disposed on a substrate substantially in a plane. The Klotz reference further fails to disclose a plurality of conductors extending substantially in the plane. The sensor plates, as disclosed by Klotz, are disposed so as to be conformal with the curved surface structure of tube like collar assembly (*See,* FIG. 3 and column 4, lines 53 to 57). The Klotz reference further discloses that each sensor plate is coupled to the capacitive sensing processor via the multiplexer to enable electrical signals to be processed (*See,* column 5, lines 26 to 30). No suggestion can be found in Klotz for the planar structure recited in claim 15.

Because, Klotz fails to disclose the plurality of sensors disposed on a substrate substantially in a plane and a plurality of conductors extending substantially in the plane, the reference cannot support a *prima facie* case of anticipation of claim 15. Accordingly, Applicants respectfully submit that independent claim 15 and claims depending therefrom are allowable and respectfully request the Examiner to reconsider the rejection of the claims.

Claim 23 and Claims Depending Therefrom

Claim 23 as amended recites a method for avoiding collision of a system component with an object. The method includes detecting a presence of the object within a critical distance from a face of the system component via a collision avoidance array disposed on a detecting face of the system component and generating a corresponding electrical signal and generating an output signal representative of the presence of the object.

The Klotz reference fails to disclose the collision avoidance array disposed on the detecting face of the system component.

Applicants respectfully submit that Klotz fails to disclose a collision avoidance array that is disposed on a detecting face of the detector or any method that is based on such an array. The capacitive proximity detection system, as disclosed by Klotz, is coupled to components of a radiation imaging system so as to sense the position of the radiation detector assembly with respect to a subject and generate signals to control the movement of the gantry assembly and components thereon to dispose the radiation detector in a desired location with respect to the subject (*See,* FIG. 1 and column 3, lines 48-54).

Because, Klotz fails to disclose the capacitive proximity detection system being disposed on the detecting face of the detector assembly or any method employing such an arrangement, the reference cannot support a *prima facie* case of anticipation of claim 23. Accordingly, Applicants respectfully submit that independent claim 23 and claims

depending therefrom are allowable and respectfully request the Examiner to reconsider the rejection of the claims.

Claim 29 and Claims Depending Therefrom

Claim 29 recites a system for avoiding collision of a system component with an object. The system includes means for detecting a presence of the object within a critical distance from a face of the system component via a collision avoidance array disposed on a detecting face of the system component and generating a corresponding electrical signal. The system further includes means for generating an output signal representative of the presence of the object.

The Klotz reference fails to disclose the collision avoidance array disposed on the detecting face of the system component.

As discussed above, Klotz fails to disclose a capacitive proximity detection system disposed on the detecting face of the detector assembly. The reference therefore cannot support a *prima facie* case of anticipation of claim 29. Accordingly, Applicants respectfully submit that independent claim 29 and claims depending therefrom are allowable and respectfully request the Examiner to reconsider the rejection of the claims.

Rejections Under 35 U.S.C. §103

The Office Action summarizes claims 6 and 28 as rejected under 35 U.S.C. §103(a) in view of Klotz as applied to claims 1 and 23 above, and further in view of U.S. Patent 6,412,978, Watanabe et al. (hereinafter "Watanabe"). The Office Action further summarizes claims 8, 11, 25 and 31 as rejected under 35 U.S.C. §103(a) in view of Klotz as applied to claims 1, 10, 23 and 29 above, and further in view of U.S. Patent 6,476,376, Biegelsen et al. (hereinafter "Beigelsen").

Klotz does not teach, suggest or disclose each and every aspect of Applicants' recited invention as recited in independent claims 1 and 23. Claim 6 depends directly

from claim 1 and claim 28 depends indirectly from claim 23. These claims are therefore allowable by virtue of such dependency, as well as for the subject matter they separately recite. Thus it is respectfully requested the rejection of claims 6 and 8 under 35 U.S.C. §103(a) be withdrawn.

Klotz does not teach, suggest or disclose each and every aspect of Applicants' recited invention as claimed in independent claims 10, 23 and 29. Claim 8 depends indirectly from claim 1; claim 11 depends directly from claim 10; claim 25 depends indirectly from claim 23; and claim 31 depends directly from claim 29. These claims are therefore allowable by virtue of such dependency, as well as for the subject matter they separately recite. Thus it is respectfully requested the rejection of claims 8, 11, 25 and 31 under 35 U.S.C. §103(a) be withdrawn.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: June 9 2005

Manish B. Vyas
Reg. No. 54,516
FLETCHER YODER
P.O. Box 692289
Houston, TX 77269-2289
(281) 970-4545